

Hood Canal Salmon Recovery

Call for Salmon Habitat Projects 2017

Background

Within Hood Canal, summer chum (inclusive of the eastern Strait of Juan de Fuca population), Chinook salmon (inclusive of the Skokomish and mid-Hood Canal populations), Puget Sound steelhead trout and bull trout are listed salmonid species under the Endangered Species Act (ESA).¹ Two populations of salmon have been identified as priority populations for Hood Canal salmon habitat actions, the Hood Canal Summer Chum salmon and Skokomish Chinook salmon. These two populations are selected based on the knowledge of needed habitat actions to support recovery of these populations and the importance of these populations to the economic and cultural well-being of Hood Canal.

For the 2017 habitat project funding round, as managed through the Recreation and Conservation Office (RCO) Salmon Recovery Funding Board (SRFB) process in coordination with the Hood Canal Lead Entity, this call for projects will have as the priority habitat projects that support Hood Canal summer chum. From discussions with the Skokomish Tribe and the Puget Sound Partnership² it has been determined for the 2017 SRFB funding that until the Skokomish Chinook chapter of the Puget Sound Chinook recovery plan is further developed, along with the development of a habitat project prioritization, implementation sequencing and funding strategy, it would be premature to consider additional habitat restoration projects in addition to those already in-progress or proposed for funding from the 2016 funding round.

For 2018 and beyond this *Call for Salmon Habitat Projects* process will incorporate the Skokomish habitat project strategic approach. However, until a Skokomish watershed habitat project strategic plan is developed salmon habitat recovery funding in Hood Canal, as provided through RCO, will be dedicated to Hood Canal summer chum habitat actions.

Introduction

The Hood Canal Coordinating Council (HCCC) is seeking proposals for salmon habitat restoration projects that support Hood Canal summer chum recovery. HCCC, as the Regional Recovery Organization for Hood Canal summer chum [RCW 77.85.090 states that regional recovery organizations may plan, coordinate, and monitor the implementation of a regional recovery plan], has reviewed summer chum

¹ At this time, Hood Canal Steelhead, mid-Hood Canal Chinook and bull trout are not being directly considered under this call for projects. Mid-Hood Canal Chinook are part of the Puget Sound Chinook Salmon ESA-listing, but limited information is available on the status of this population. Work by HCCC staff and others is on-going that will provide a better understanding of the status of this population and once a habitat recovery strategy is prepared habitat restoration actions targeting mid-Hood Canal Chinook can be implemented. Hood Canal steelhead are ESA-listed as part of Puget Sound steelhead (May 2007). Critical habitat was recently designated (March 2016) however a final steelhead recovery approach is yet to be described. Mid-Hood Canal Chinook and Hood Canal steelhead will be incorporated into any future *Call for Salmon Habitat Projects* as appropriate. Bull trout populations will be supported through habitat work completed for other salmonid species, particularly those projects restoring nearshore habitat.

² As of this version discussions with the Puget Sound Partnership are in progress.

recovery documents (HCCC 2005; Lestelle et al. 2014) and has identified core sub-populations within the two main populations, Hood Canal and the Strait of Juan de Fuca, that comprise the Hood Canal summer chum ESU that will be the focus of habitat restoration actions in 2017. HCCC has also reviewed the *Guidance for Prioritizing Salmonid Stocks, Issues and Actions for the Hood Canal Coordinating Council* (Lestelle 2015) document to characterize habitat processes that are non-functional and to identify needed actions to address functional process restoration. The *Guidance for Prioritizing Salmonid Stocks, Issues and Actions for the Hood Canal Coordinating Council* (Lestelle 2015) was developed to assist HCCC in identifying the broader scope of recovery work that is needed across the region of interest to HCCC. The document provides a more in-depth procedure for prioritizing actions based on a synthesis of the issues (or threats) that need to be addressed by actions aimed at recovering salmon populations.

In addition to review of existing planning and prioritization documents, HCCC has held numerous summer chum planning meetings with co-managers and NOAA-Fisheries during the summer of 2016 that have identified recovery planning needs; both at the sub-population level and for habitat actions. HCCC has conducted a review of completed habitats actions to date as compared to habitat actions identified in the 2005 Summer Chum Recovery Plan. This review has assisted HCCC with identifying where habitat actions have not been completed to date and the priority watersheds and actions for the 2017 funding.

The process and determining factors for identifying needed habitat actions in the 2017 Call for Salmon Habitat Projects are illustrated in Figure 1.

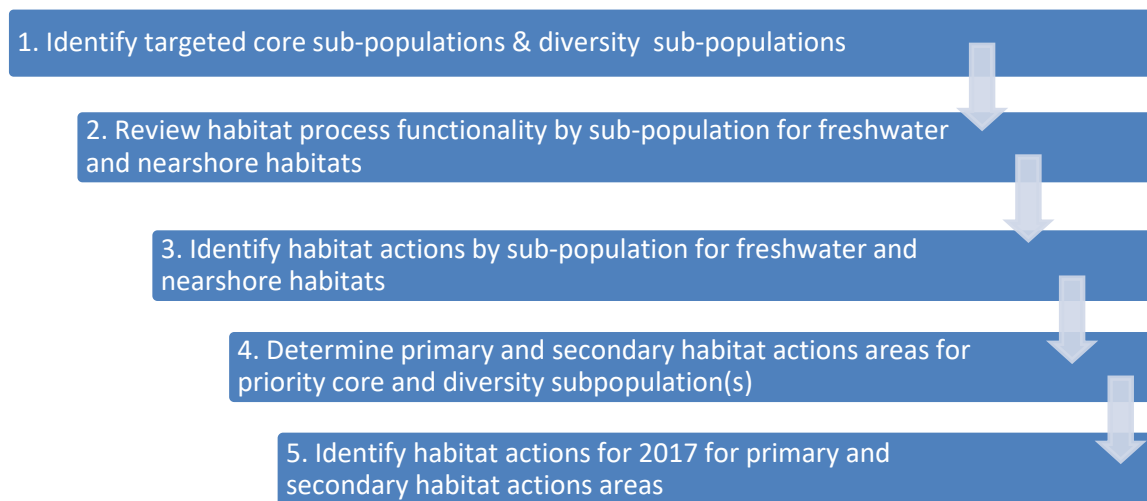


Figure 1. Process for identifying needed habitat actions for the 2017 Call for Salmon Habitat Projects.

Identification of Core and Diversity Sub-populations

Core sub-populations are critical for the continued existence of summer chum and must be maintained and supported to sustain population viability and reach delisting of this species. The core sub-populations include Quilcene, Dosewallips, Salmon and Snow. These core sub-populations currently contribute significantly to the viability of the populations (i.e., they are essentially ‘holding up’ the

population) as they provide the largest capacity production units (Lestelle et al. 2014). For this *Call for Salmon Habitat Projects* the Union is also considered a core sub-population based on its strength and the need for spatial diversity within the Hood Canal population. The Union River sub-population anchors the southern extent of the Hood Canal population and is likely providing a productivity source for neighboring watersheds. The identified core sub-populations are presented in Table 1.

Table 1. Core sub-populations of Hood Canal Summer Chum		
HOOD CANAL POPULATION		
Quilcene (Big Quilcene & Little Quilcene)	Dosewallips	Union
STRAIT OF JUAN DE FUCA POPULATION		
Salmon	Snow	

HCCC has also identified diversity sub-population areas that will be essential in reaching the population spatial structure³ and diversity delisting criteria for Hood Canal summer chum. The identified diversity habitat areas are presented in Table 2.

Table 2. Diversity sub-population of Hood Canal Summer Chum		
HOOD CANAL POPULATION		
Big Beef	Dewatto	Tahuya
STRAIT OF JUAN DE FUCA POPULATION		
Dungeness		

Habitat Process Functionality

Review of the *Guidance for Prioritizing Salmonid Stocks, Issues and Actions for the Hood Canal Coordinating Council* (Lestelle 2015) for these sub-populations resulted in the identification of watershed processes in both freshwater and nearshore environments that are non-functional. The highest ranking non-functional processes (scored by the relative importance to each sub-population ranging from 0, lowest, to 4, highest) were selected (Table 3).

³ A viable population contains multiple persistent spawning aggregations. The number of persistent aggregations needed for viability depends on the historical biological characteristics of the population and the historical distribution of spawning aggregations of the population. Meeting spatial structure population viability criteria will require reestablishing spawning aggregations in some major rivers and smaller streams and creeks where they have been extirpated (NOAA Fisheries 2011).

Table 3. Core and Diversity Sub-population Habitat Process Review		
[*Highest relative importance scores of 3 or 4 only (4 in bold); unless noted differently]		
HOOD CANAL POPULATION - CORE SUBPOPULATIONS HABITAT PROCESS REVIEW		
	*PRIORITIZATION - PROCESS NON-FUNCTIONAL FRESHWATER	*PRIORITIZATION - PROCESS NON-FUNCTIONAL NEARSHORE
BIG QUILCENE	stream channels; floodplain; sediment process	tidal flow regime
LITTLE QUILCENE	small stream floodplain	sediment process; tidal flow regime; estuarine wetlands
DOSEWALLIPS	none	sediment process; tidal flow regime
UNION RIVER	small stream channels; small stream floodplain; sediment process; riparian	none
HOOD CANAL POPULATION - DIVERSITY SUBPOPULATIONS HABITAT PROCESS REVIEW		
	*PRIORITIZATION - PROCESS NON-FUNCTIONAL FRESHWATER	*PRIORITIZATION - PROCESS NON-FUNCTIONAL NEARSHORE
BIG BEEF	sediment process	sediment process; tidal flow regime; shorelines and channels
DEWATTO	riparian (score of 2)	none
TAHUYA	sediment process ; small stream channels; small stream floodplain; riparian	tidal flow regime; riparian
STRAIT OF JUAN DE FUCA POPULATION - CORE SUBPOPULATIONS HABITAT PROCESS REVIEW		
	*PRIORITIZATION - PROCESS NON-FUNCTIONAL FRESHWATER	*PRIORITIZATION - PROCESS NON-FUNCTIONAL NEARSHORE
SALMON	access to instream	tidal flow regime; estuarine wetlands; riparian
SNOW	small stream channels; small stream floodplain; riparian	tidal flow regime; estuarine wetlands; riparian
STRAIT OF JUAN DE FUCA POPULATION - DIVERSITY SUBPOPULATIONS HABITAT PROCESS REVIEW		
	*PRIORITIZATION - PROCESS NON-FUNCTIONAL FRESHWATER	*PRIORITIZATION - PROCESS NON-FUNCTIONAL NEARSHORE
DUNGENESS	stream channels; floodplain; sediment process ; riparian, flow regime	sediment process; tidal flow regime; shorelines and channels; estuarine wetlands

*Scores of relative importance to each sub-population range from 0, lowest, to 4, highest.

Identification of Habitat Actions

An “action” is meant as a type of activity that could be implemented for the purpose of ameliorating or eliminating the negative effects of an issue (or threat), as captured in Table 3’s list of non-functional habitat processes. Lestelle 2015 defined all actions in a similar way, not mixing in project-scaled activities (i.e., specific activities to be taken at specified sites at a specified scale) to the analysis. Actions (as presented within Lestelle 2015) needed to address the non-functional habitat processes identified within the core and diversity sub-populations are summarized in Table 4.

Table 4. Core and Diversity Sub-population Habitat Actions [*Highest relative importance scores of 4 only]		
HOOD CANAL POPULATION - CORE SUBPOPULATIONS HABITAT ACTIONS		
	*PRIORITIZATION - HABITAT ACTION NEEDED TO RESTORE PROCESS FRESHWATER	*PRIORITIZATION - HABITAT ACTION NEEDED TO RESTORE PROCESS NEARSHORE
BIG QUILCENE	channel pattern; CMZ, large wood; restore floodplains; restore riparian; road crossings; transportation infrastructure	channel rehab; transportation infrastructure
LITTLE QUILCENE	channel pattern; CMZ; large wood; road crossing	none
DOSEWALLIPS	large wood; road crossings	berm dike removal; transportation infrastructure
UNION	restore riparian; road crossings	none
HOOD CANAL POPULATION – DIVERSITY SUBPOPULATIONS HABITAT ACTIONS		
	*PRIORITIZATION - HABITAT ACTION NEEDED TO RESTORE PROCESS FRESHWATER	*PRIORITIZATION - HABITAT ACTION NEEDED TO RESTORE PROCESS NEARSHORE
BIG BEEF	road crossings	berm dike removal; transportation infrastructure
DEWATTO	protect floodplains; protect riparian; road crossings	protection
TAHUYA	large wood; restore floodplains; restore riparian; road crossings; watershed analysis	transportation infrastructure
STRAIT OF JUAN DE FUCA POPULATION - CORE SUBPOPULATIONS HABITAT ACTIONS		
	*PRIORITIZATION - HABITAT ACTION NEEDED TO RESTORE PROCESS FRESHWATER	*PRIORITIZATION - HABITAT ACTION NEEDED TO RESTORE PROCESS NEARSHORE
SALMON	road crossings	transportation infrastructure
SNOW	channel pattern; large wood; restore floodplains; restore riparian; road crossings; sediment deposits	transportation infrastructure

Table 4. Core and Diversity Sub-population Habitat Actions [*Highest relative importance scores of 4 only]		
STRAIT OF JUAN DE FUCA POPULATION – DIVERSITY SUBPOPULATIONS HABITAT ACTIONS		
	*PRIORITIZATION - HABITAT ACTION NEEDED TO RESTORE PROCESS FRESHWATER	*PRIORITIZATION - HABITAT ACTION NEEDED TO RESTORE PROCESS NEARSHORE
DUNGENESS	channel pattern; CMZ; Dungeness CIDMP; Dungeness rule; large wood; restore floodplains; restore riparian; road crossings, run-off BMP's	berm dike removal

*Scores of relative importance to each sub-population range from 0, lowest, to 4, highest.

Selected Habitat Actions for 2017 SRFB Funding Round

For the 2017 SRFB grant round, priority core and diversity subpopulation(s) for each population have been selected based on criteria presented below. The 2017 *Call for Salmon Habitat Projects* will consider proposed projects that address the identified habitat actions (Table 5) for these selected sub-populations.

Rationale for selected sub-populations

BIG QUILCENE – core sub-population for Hood Canal population; spawning aggregation has highest performance of any other spawning aggregation; large restoration project in-progress needs continued support.

UNION - southern extent of the Hood Canal population and is likely providing a productivity source for neighboring watersheds; east shoreline Hood Canal population; supports diversity needs; core sub-population based on the strength of the sub-population and the need for spatial diversity within the Hood Canal population.

DEWATTO – need for eastern shoreline spawning aggregation to meet spatial structure/diversity needs of the population and delisting criteria; long-term habitat protection of intact habitat needed.

TAHUYA –need for eastern shoreline spawning aggregation to meet spatial structure/diversity needs of the population and delisting criteria.

SNOW – core sub-population for Strait of Juan de Fuca; need to restore properly functioning conditions to ensure persistence and survival; restoration and protection of primary spawning habitat to ensure sub-population productivity.

SALMON – core sub-population for Strait of Juan de Fuca; restoration and protection of primary spawning habitat to ensure sub-population productivity.

DUNGENESS – western extent of Strait of Juan de Fuca population, watershed of significance (HCCC 2005) for support of population diversity needs.

For each summer chum population a Primary and a Secondary habitat action area has been identified within the targeted core sub-populations. The Primary habitat action area for the Hood Canal population was selected as Big Quilcene as this sub-population provides the foundational abundance and is key for population resilience over time. Protection and enhancement of this sub-population is a high priority for long-term population recovery. Additionally, on-going and currently under design habitat actions in this watershed will address key habitat recovery actions as identified in the 2005 summer chum recovery plan. The Union was selected as a secondary habitat action area as the Union

sub-population provides a strong foothold in the southern extent of Hood Canal. For the Strait of Juan de Fuca population the Snow Creek sub-population was identified as the primary habitat action as the Snow Creek sub-population contributes to the Snow/Salmon spawning complex which is critical to long-term population viability. Review of the prioritization of habitat actions needed to restore process in the freshwater environment resulted in a full list of needed actions as compared to Salmon creek; which has had numerous projects completed to date. However, Salmon Creek was identified as the secondary habitat action area to continue on efforts to date and to support this spawning complex.

Table 5. Habitat Actions for 2017 SRFB Funding Grant Round		
[*Highest relative importance scores of 4]		
HOOD CANAL POPULATION - CORE SUBPOPULATIONS		
Primary Habitat Action Area		
	*PRIORITIZATION - HABITAT ACTION NEEDED TO RESTORE PROCESS FRESHWATER	*PRIORITIZATION - HABITAT ACTION NEEDED TO RESTORE PROCESS NEARSHORE
BIG QUILCENE	channel pattern; CMZ, large wood; restore floodplains; restore riparian; road crossings; transportation infrastructure	channel rehab; transportation infrastructure
Secondary Habitat Action Area		
UNION	restore riparian; road crossings	none
HOOD CANAL POPULATION - DIVERSITY SUBPOPULATIONS		
	PRIORITIZATION - HABITAT ACTION NEEDED TO RESTORE PROCESS FRESHWATER	PRIORITIZATION - HABITAT ACTION NEEDED TO RESTORE PROCESS NEARSHORE
Primary Habitat Action Area		
DEWATTO	protect floodplains; protect riparian; road crossings	protection
TAHUYA	need for assessment; large wood; restore floodplains; restore riparian; road crossings; watershed analysis	transportation infrastructure
STRAIT OF JUAN DE FUCA POPULATION - CORE SUBPOPULATIONS		
Primary Habitat Action Area		
	PRIORITIZATION - HABITAT ACTION NEEDED TO RESTORE PROCESS FRESHWATER	PRIORITIZATION - HABITAT ACTION NEEDED TO RESTORE PROCESS NEARSHORE
SNOW	channel pattern; large wood; restore floodplains; restore riparian; road crossings; sediment deposits	transportation infrastructure
Secondary Habitat Action Area		

Table 5. Habitat Actions for 2017 SRFB Funding Grant Round		
[*Highest relative importance scores of 4]		
SALMON	road crossings	transportation infrastructure
STRAIT OF JUAN DE FUCA POPULATION - DIVERSITY SUBPOPULATIONS		
	PRIORITIZATION - HABITAT ACTION NEEDED TO RESTORE PROCESS FRESHWATER	PRIORITIZATION - HABITAT ACTION NEEDED TO RESTORE PROCESS NEARSHORE
Primary Habitat Action Area		
DUNGENESS	none in 2017 – wait for GI floodplain investigations and GI to progress	none in 2017 – wait for GI floodplain investigations and GI to progress

*Scores of relative importance to each sub-population range from 0, lowest, to 4, highest.

Call for Projects 2017

A project is defined to be a specifically designed activity implemented to achieve the basic intent of one or more actions (as identified in Table 5) over a given footprint and over a specific timeframe, to achieve a specific outcome. HCCC will issue a *Call for Salmon Habitat Projects* in early 2017. Individuals and entities wishing to propose a salmon habitat project will be asked to complete a *Letter of Intent* (LOI) for the project to be considered for funding (a letter of intent template will be provided). HCCC staff will conduct an initial review of LOI's and determine which projects are eligible for funding based on how well they align with the primary or secondary habitat actions identified in Table 5.

Once a project is approved through the initial LOI review process, continued project review, ranking and selection for funding will take into consideration project factors such as; ability of project to address habitat process restoration, project fit to identified action, project feasibility, project scale and cost effectiveness.

Process for Request for Funding for Actions Not in Table 5

Should HCCC not receive sufficient and process restoration based proposals to complete the top actions as identified in this *Call for Salmon Habitat Projects*, HCCC will conduct a second call for projects which will be open to projects in all Hood Canal watersheds. All proposals submitted in the open call, should it be conducted, must clearly demonstrate that the project once completed will achieve ecological benefits to Hood Canal summer chum.

Phased Projects – current

Projects previously funded that were planned to be executed utilizing a phased implementation approach will be considered for funding in 2017. However, projects addressing the habitat actions identified in Table 5 will be given preference.

Proposal Submittal Procedure

Once a LOI is reviewed and the project is approved for submittal into the 2017 HCCC Lead Entity grant round, sponsors can refer to the Annual HCCC Lead Entity (LE) for application development and grant round details.

References

HCCC (Hood Canal Coordinating Council) 2005. Hood Canal and Eastern Strait of Juan de Fuca Summer Chum Salmon Recovery Plan. Report submitted to NOAA Fisheries, November 15, 2005.

Lestelle et al. 2014. Guidance for Updating Recovery Goals for the Hood Canal and Strait of Juan de Fuca Summer Chum Salmon Populations. Submitted to Hood Canal Coordinating Council. September 2014.

Lestelle 2015. Guidance for Prioritizing Salmonid Stocks, Issues and Actions for the Hood Canal Coordinating Council. Prepared for the Hood Canal Coordinating Council. March 2015.

NOAA (National Oceanic and Atmospheric Administration) Fisheries 2011. 5-Year Review: Summary & Evaluation of Puget Sound Chinook Hood Canal Summer Chum Puget Sound Steelhead. National Marine Fisheries Service Northwest Region, Portland, OR.